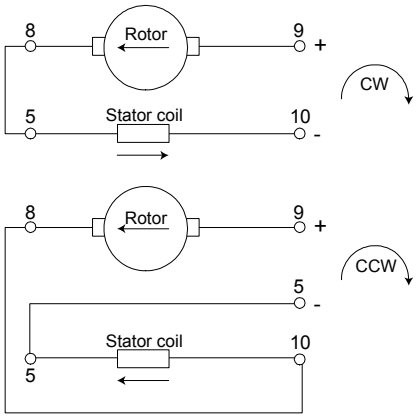
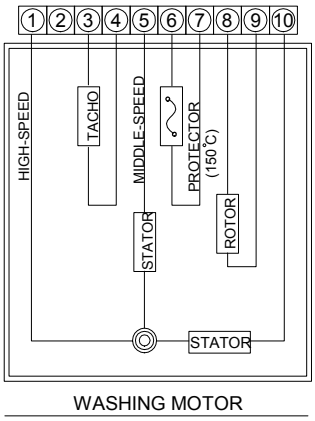
10. Designation of Main Components

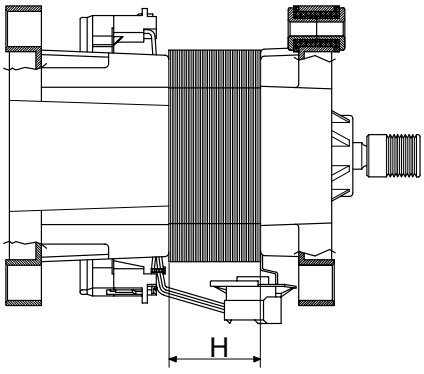
10-1 Normal / Reverse Revolution of Motor and R. P. M. Control



<Figure1>



<Figure2>

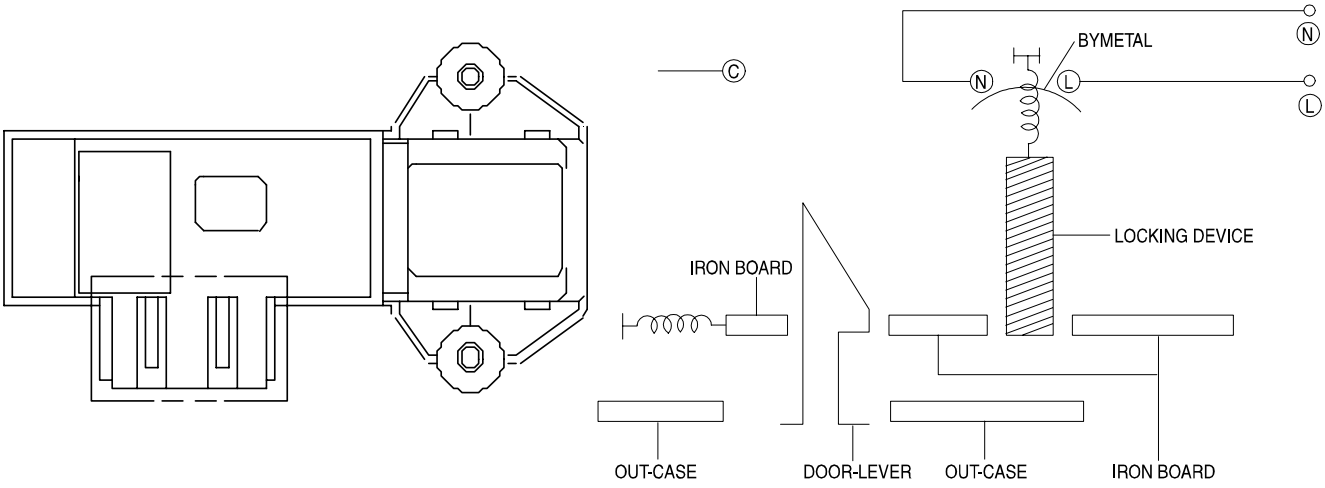


<Figure3>

(± 7%)	STATOR(51)	ROTOR(8.9)	TACHO(3.4)	PROTECTOR(6.7)	"H"(mm)	Code-No.	Remark
Resistance value	2.08Ω	1.99Ω	38.8Ω	0	30	DC31-00002H	
Rated value	220~240V/50Hz						

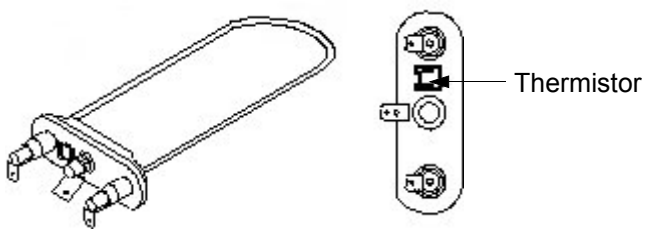
10-2 Door safety Device

When Door is closed, door stay closed. if "set" is operated, power supplied to Ⓝ, Ⓛ wires have bymetal keep the door closed, and electronical power flows between Ⓛ and Ⓒ make it operate.



10-3 Heater

1) Capacity : AC 230V/800W
2) Location : Bottom of TUB
3) Function : Raise the water temperature
supplied at the wash process.
4) Resistance value : 62.63~69.22 Ω
5) Thermal Fuse : 128∝C



10-4 Detergent tub and water supply value

A Detergent tub is composed of housing and 3 drawers . supplied water flows into the 3 drawer-detergent tub by way of classifier at each washing process.

three open drainage way whith detergent and supplied water by way of connector located under the housing flows into washing tub.

the water supply valve is composed of a hot water valve(1 way) and a cold water valve(3way) and water flow per min in the valve is below.

	Hot water valve(1 way)
water flow(L/min)	10L
resistance value	4.3㏀
power consumption	AC 220v ~ 240V 50/60㎐
usable water pressure	0.5 ~ 8 ㎏/㎠

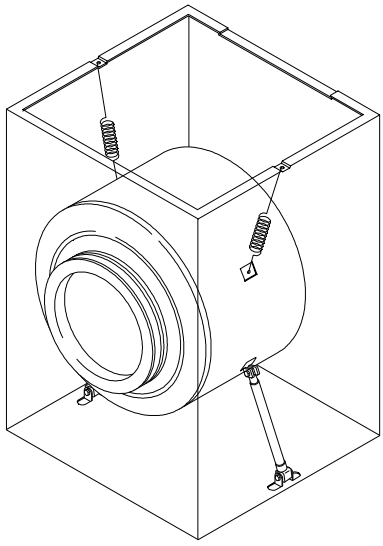
10-5 Shock absorber and buffer spring

This wash machine is equipped with 2 Shock absorbers with same capacity and with 2 buffer springs. 2 Shock absorber are placed under the tub and outside case , 4 buffer springs are placed on the right and left of the upper side of outside case.

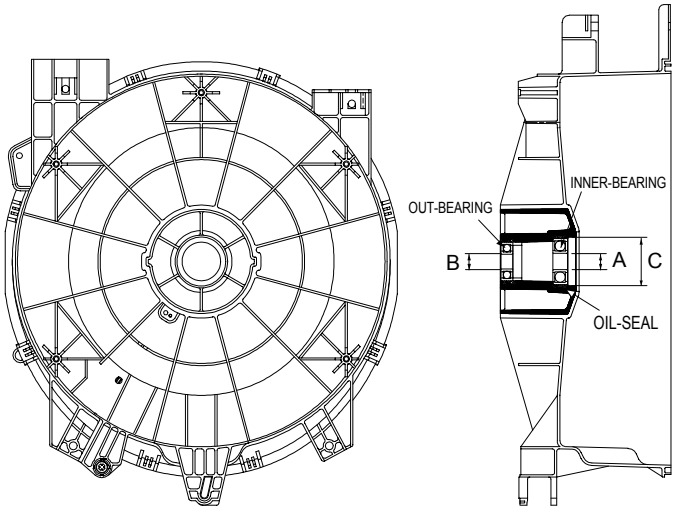
Shock absorber function: during wash, dehydration absorb the shock.

buffer spring: buffering the vibration

device	capacity of Shock absorber
Shock absorber	8±2kg



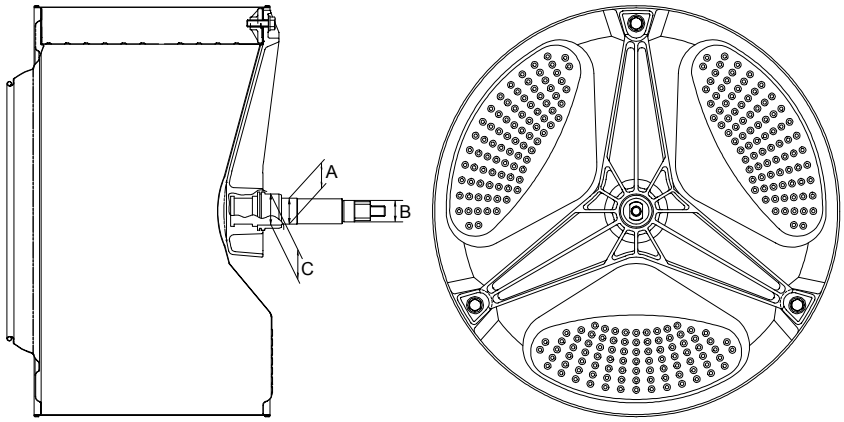
10-6 ASSY-TUB BACK



(unit : mm)

TYPE	INNER-BEARING(A)	OUT-BEARING(B)	OIL-SEAL(C)	Assy-Housing Bearing(D)	Assy-Tub Back
I	ø20	ø17	ø24.3	DC97-02133A	DC97-02137B

10-7 ASSY- DRUM

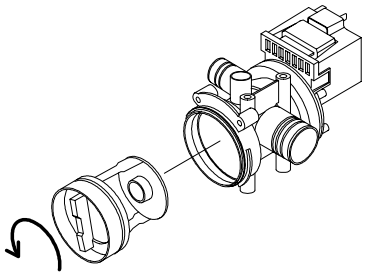


(unit : mm)

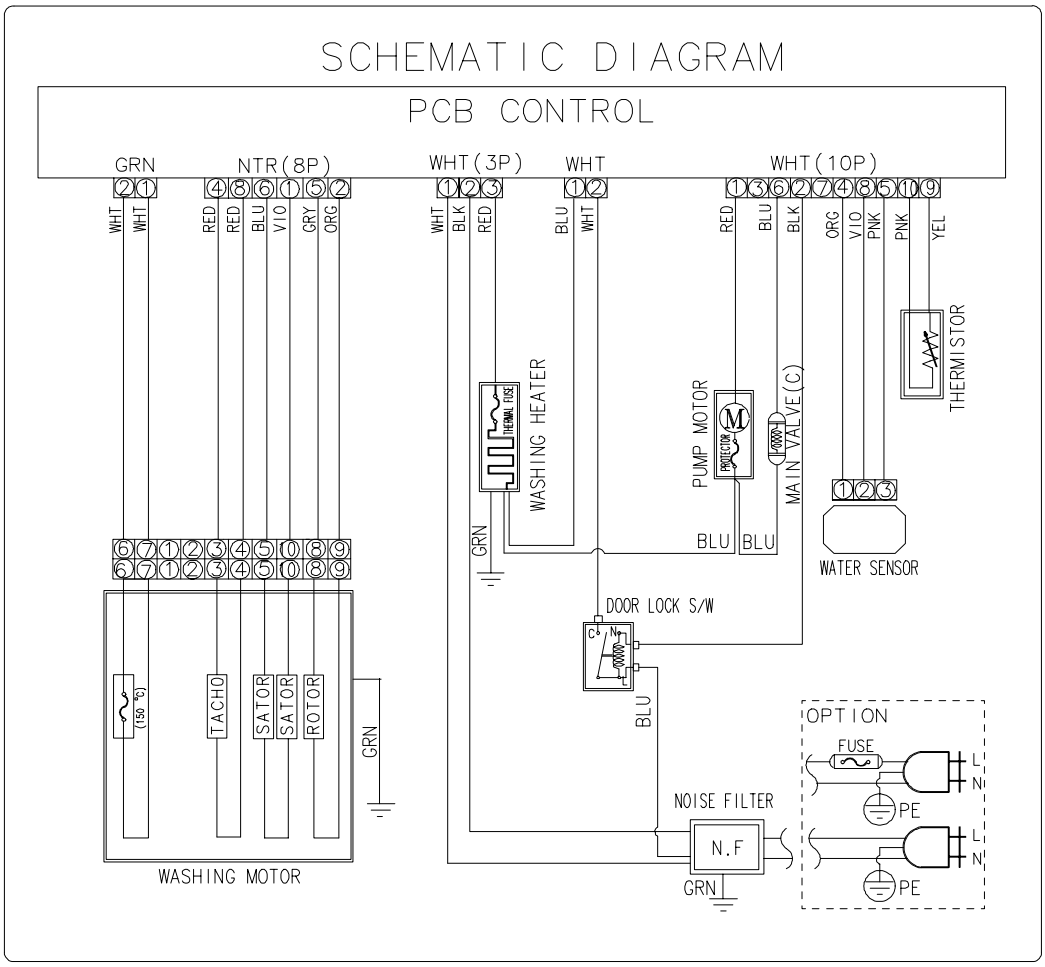
TYPE	(A)	(B)	(C)	CODE-NO.	REMARK
I	ø20	ø17	ø25	DC97-02099C	

10-8 ASSY-PUMP DRAIN

1) Capacity : AC 230V 34W
2) Location : Front bottom(R)
3) Resistance : 150Ω ~ 180Ω

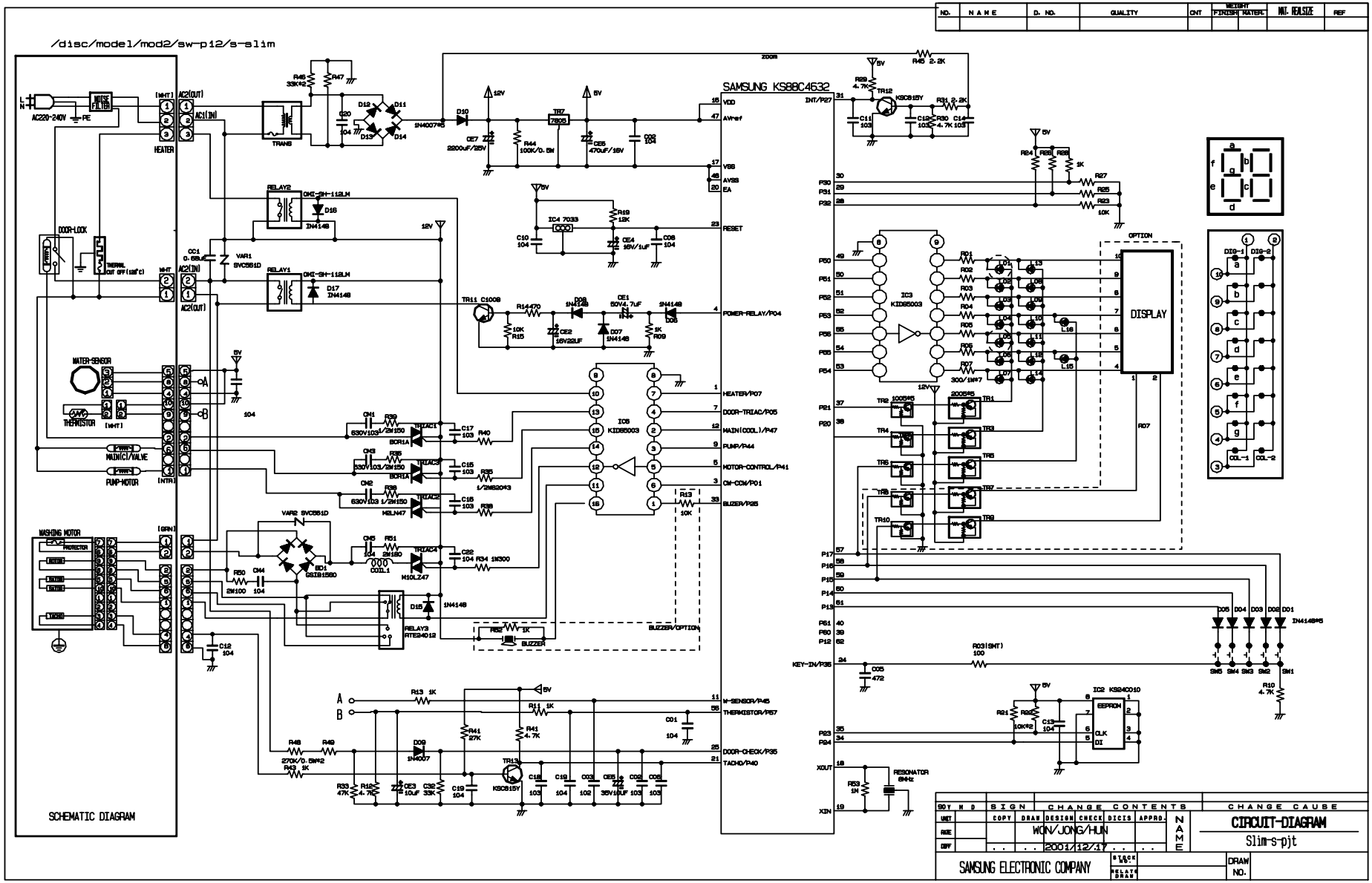


11. PCB Schematic Diagram



11-1. PCB CIRCUIT DIAGRAM

This Document can not be used without Samsung's authorization.



11-1. ASSY-PCB Part List

NO.	Part Code	Code NO	Q'ty	Description	Spercificatio	Remark
1	WB002	1401-001007	1	THYRISTOR-TRIAC	10A,SM10LZ47(TOSHIBA)	TRIAC4
2	WB002	1401-001024	5	THYRISTOR-TRIAC	2A,SM2LZ47(TOSHIBA)	TRIAC2
3	WB003	0402-001023	1	DIODE-BRIDGE	RBV1506,600V,15A,SIP-4	BD1
4	WB004	3501-001180	1	RELAY-MINIATURE	12VDC,RTE24012	RELAY3
5	WB004	3501-001156	2	RELAY-POWER	12VDC,0.53W16000MA,1FORMC	RELAY5
6	WB004	3501-001157	3	RELAY-POWER	12VDC,0.53W16000MA,1FORMC	RELAY1,2
7	WB004	3501-001007	1	RELAY	12Vdc,200mW,5A,(TAKAMISAYA)	RELAY6
8	WB010	DC26-00005B	1	TRANS-FORMER	450MA,220~240VAC,11VDC	TRANS
9	WB003	0402-000137	6	DIODE-RECTIFIER	1N4007,1000V,1A	D15~D19
10	WB006	0504-000130	2	TR-DIGITAL	KSR1105	TR3,TR4
11	WB006	DE13-20016A	1	IC-VOLTREGU	KA7805A	TR7
12	WB006	0504-000159	2	TR-DIGITAL	KSR2105	TR1,TR2
13	WB006	0504-001080	2	TR-DIGITAL	KRC246S	TR3,TR4
14	WB006	0501-000465	1	TR-SMALL	MMBT390X	TR11-13
15	WB007	1202-000141	1	IC-DRIVE	7033,SOT-89	IC4
16	WB008	2802-001058	1	RESONATOR-CERAMIC	8MHz,02%,TP,10×5×8mm	RESO
17	WB007	DE13-20017A	3	IC-DRIVE	KID65003AP,DIP,STICK	IC3,IC5,IC6
18	WB007	1103-001160	1	IC-EEPROM	4C010,128×8BIT,DIP,8P	IC2
19	WB009	DE30-20016A	1	BUZZER	CBE2220BA,STICK	BZ
20	WB010	3404-001022	7	SWITCH-TACT	15V,20mA,130°±40gf,6×6×5mm	SW1~7
21	WB011	DE07-20040A	*	LED LAMP	SLH-34VC70F,RED,T,P15	
22	WB012	0703-001056	1	LED DISPLAY	Y-GRN,4dig,7seg,46×19×24.6mm	

12. Setting up a wash machine.

12-1 Remove the safety device for carriage

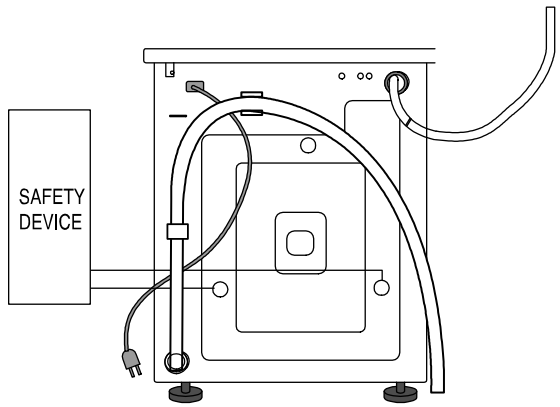
1) Remove 3 safety device volts with a enclosed wrench for safety device remove
2) Plug the 3 holes with 3 caps after removing the 3 safety device volts.

* Take care of 3 safety device volts and a wrench , you need these when you move wash machine safely.

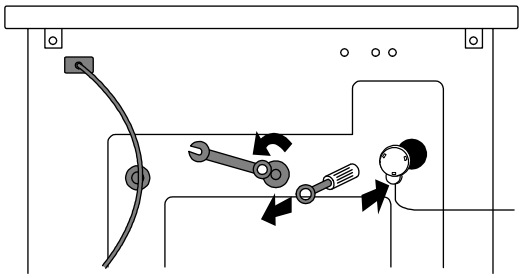
Caution

You must remove safety device before use , if not, you have much vibration or much load can br impacted on the machine.

1. Remove safety device behind of machine
   - To protect the machine, remove the assembled 3 safety device



2. Plug the 3 holes
   - Plug the 3 holes after safety device with the caps enclosed inside of washing tub



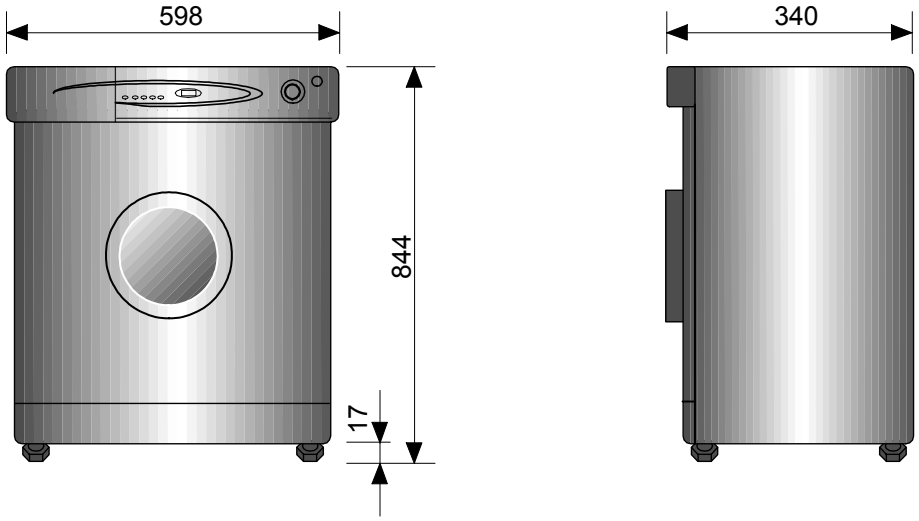
12-2 Install the wash machine on the leveled place.

With the water level adjustment device, adjust the 4 adjustment legs to install the machine leveled on the right, left, front and rear side. machine's install condition and size is following.

12-2-1 Initial assembled condition (ass'y cover top)

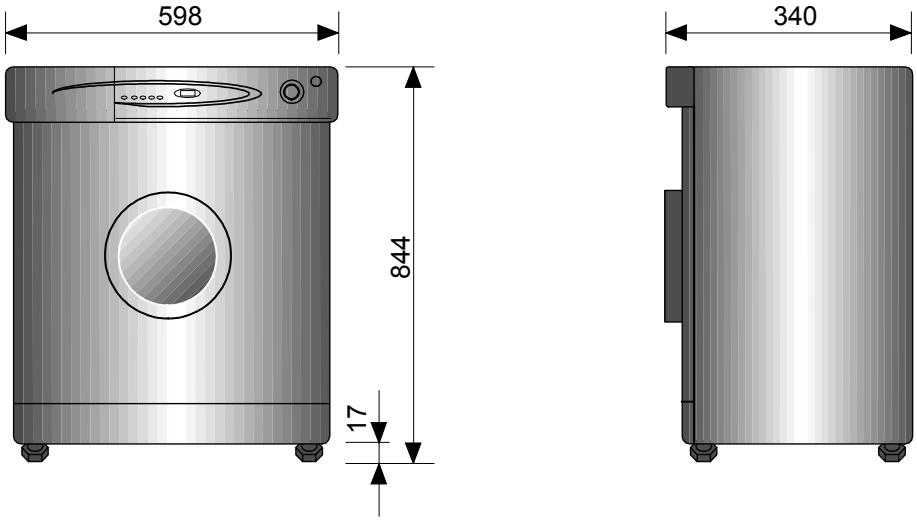
1) Adjustment legs are stick to the bottom of the machine, when the machine comes out of factory. this condition is ideal for vibration and noise.
2) When you install the machine initially or move the machine in use, unscrew the 4 legs to the left and place the machine level and spin the locking nuts and tighten it strongly.

3) Even though adjustment legs came out all the way, if machine is not levled , prop up the machine with the wood or brick to make it even.
(Do not use fragile material or slippery material such as laminated paper)



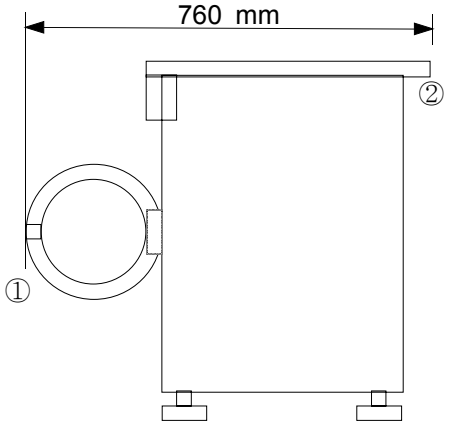
12-2-2 The condition of setting up sink(Disassembled Ass'y- Cover Top)

1) Spin the adjustment leg to the left and remove them from the front and rear side of the machine.
2) Remove the 4 locking nuts from adustment legs, and put only adjustment legs back whert those were.
3) After removing the fixing screws(each on right, left side) from the machine whichi is behind ass'y- cover top, disassemble the assy-cover top.
4) Install the sink.



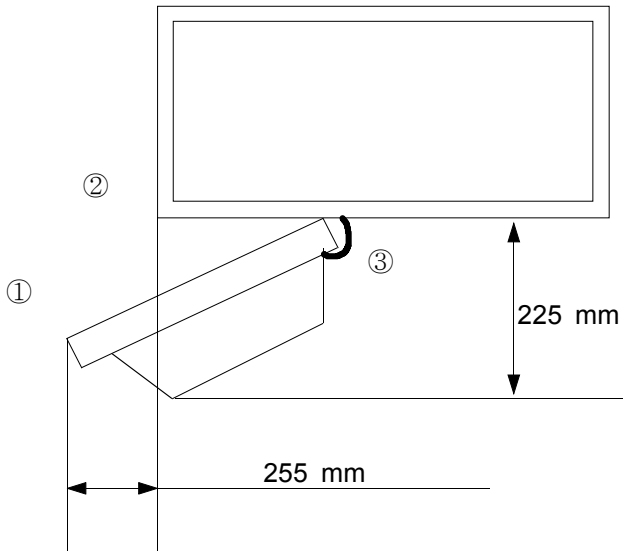
12. Setting up a wash machine.

12-3. Door Opening Dimension(Slim Model)



Side

● (When The Door Vertically Open)
The distance between door① and the rear side② is 760mm



Upper

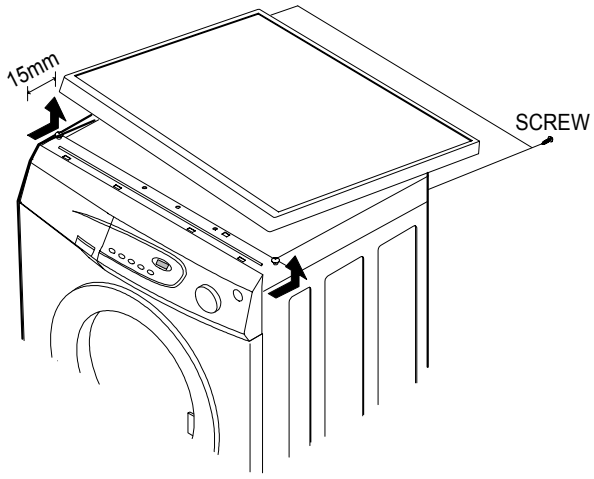
● (When the door extremely open ※)
The distance between the door edge(①) and the left side of washing machine(②) is 255mm

※ Maximum door angle(③) is 170˚

13. Assemble and Disassemble

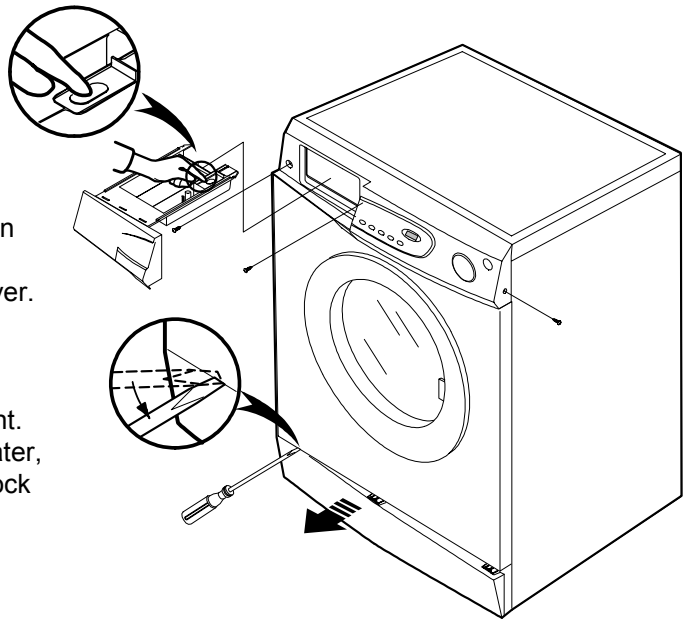
1. ASSí Y-COVER TOP

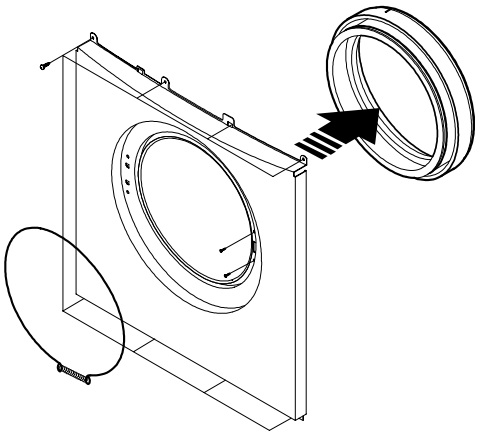
1) Remove two screws fixing the top-cover on back side.
2) Push the top-cover back about 15mm and pull it up.
3) Ití s possible to exchange and service Assy-Panel (PCB), the pressure-sensor, the noise-filter, the water valve and trans(option).



2. FRAME FRONT

1) Remove the top-cover and the assí y drawer.
2) Remove two screws fixing the control-panel on front side and the screw on right side.
3) Remove the cover-front(L) by using the (-)driver.
4) Pull the lever and open the assí y-door.
5) Part the diaphragm and the wire diaphragm away from the frame-front.
6) Remove the eight screws fixing the frame-front.
7) Ití s possible to exchange and service the heater, the pump, the shock-absorber and the door lock s/w.

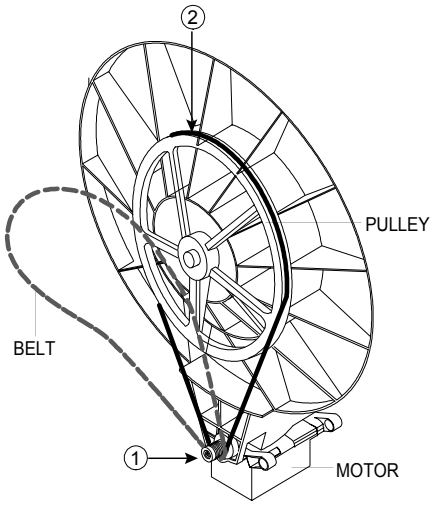




13. Assemble and Disassemble

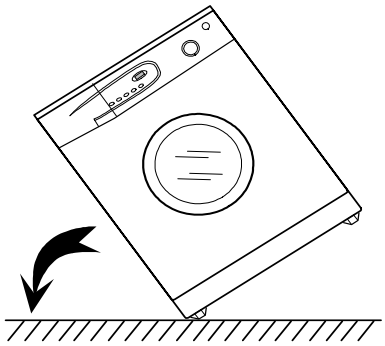
3. BELT

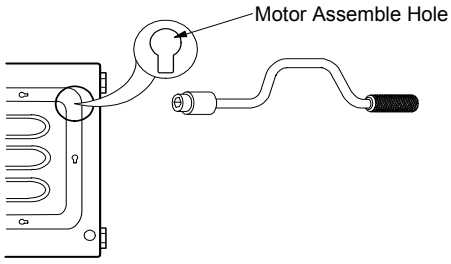
1) Remove the top-cover.
2) Disassemble and assemble the belt.
3) Check the belt is located at center of the motor-pulley.
   <When assemble the belt>
   Hook the belt on the motor pulley 1) and place it around the pulley 2).



4. MOTOR

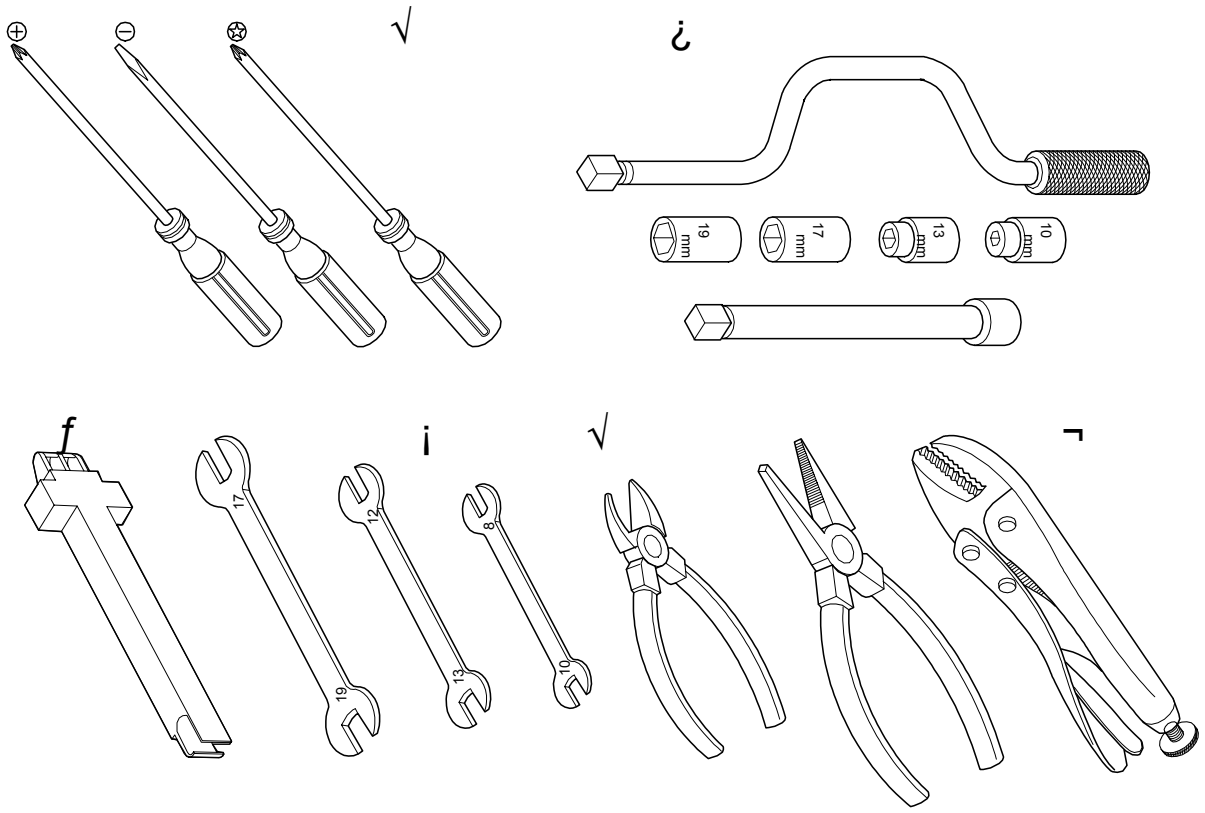
1) Lay down the washer on left side.
2) Remove the wire housing from the motor.
3) Remove the bolt fixing the motor with the box drive on back side.
4) Remove the motor.



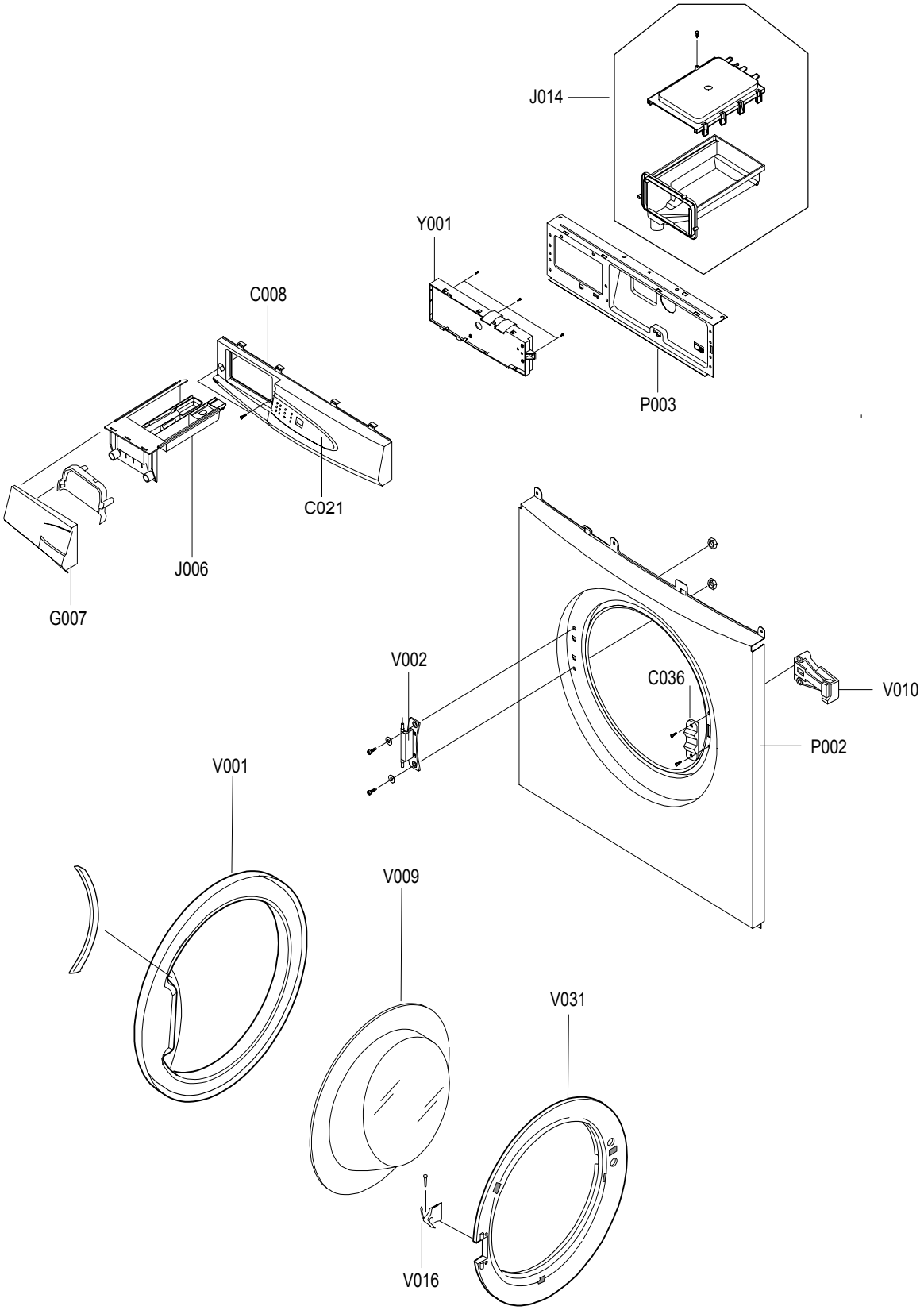


14. Tools for Disassembly and Assembly

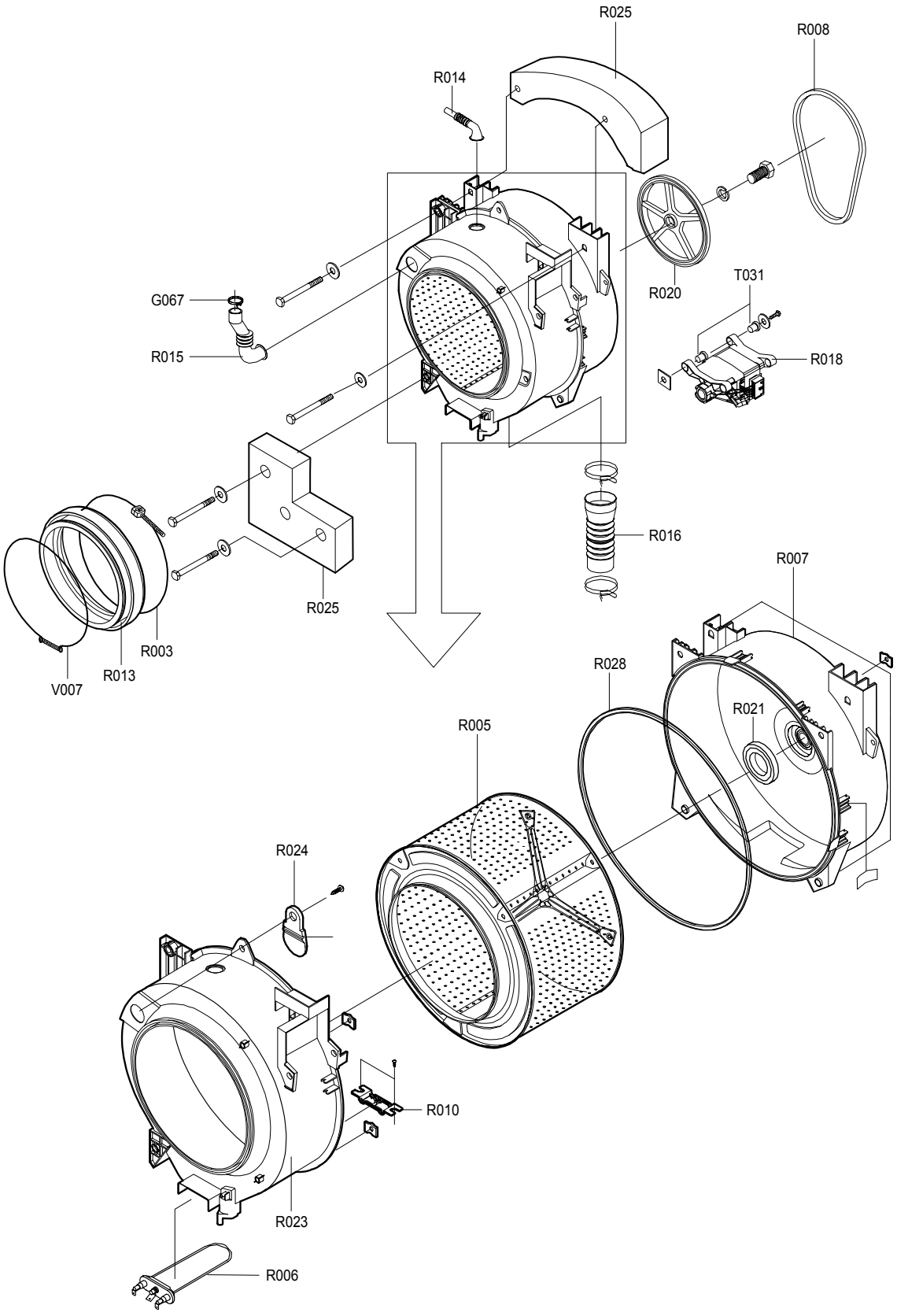
NO.	TOOL		
¿	Box driver	10mm 13mm 17mm 19mm	Heater (1) Motor (1), Balance (5) 2 holes of each left and right of the shock absorber 1 Pulley hole
¡	Double-ended spanner	10, 13 17,19mm	Replaceable for the box driver. Since the bolt runs idle when the box driver is used, use the box driver 17mm.
¬	Vice pliers		Tool to protect the idle and abrasion of the bolt for the box driver.
√	Other(Driver, Nipper, Long nose)		General tools for the after service.
ƒ	JIG for the Tub		1 (Disassemble and Assemble)



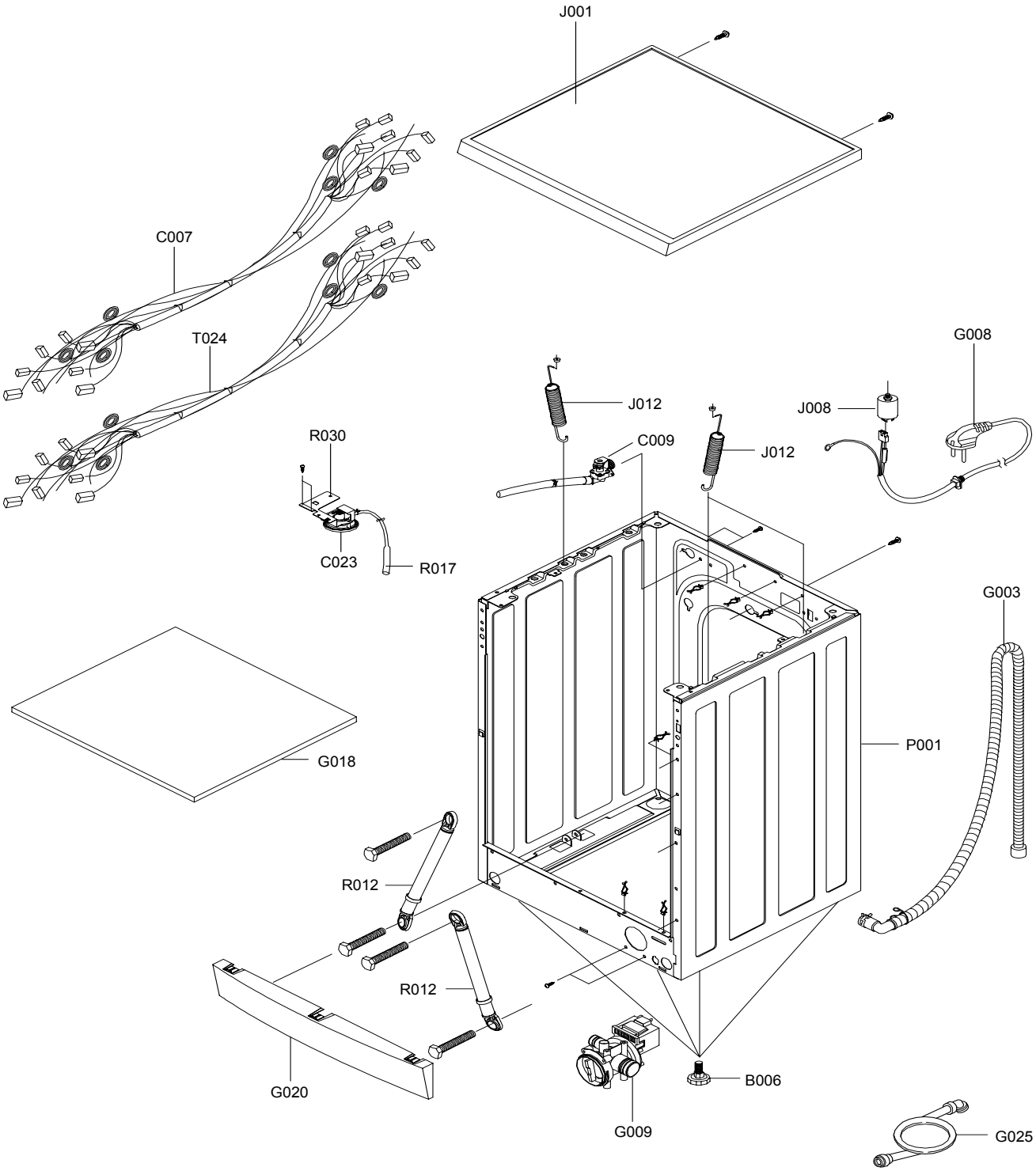
15. TOP(FRONT) - Exploded View



15. TUB - Exploded View



15. CASE - Exploded View



15. Parts List

NO.	CODE NO.	DESCRIPTION;SPECIFICATION	Q'TY
B006	DC97-02079C	ASSY-LEG;SB-PJT,SLIM/25MM/CHINA	4
C007	DC96-00521B	ASSY-M.WIRE HARNESS;S621,ROLD-DOOR	1
C008	DC64-00428A	PANEL-CONTROL;SB-PJT,HIPS,-,-,-,-,SNOW/W	1
C009	DC62-30314A	VALVE-WATER;SWF-P12,NYLON#6,-,-,-,EATON(	1
C021	DC64-00429Z	INLAY-PANEL;R1021,PC(T=0.2),-,-,-,SIL,RU	1
C023	DC32-30006P	SENSOR PRESSURE;DN-S14(P1291),TERMINAL-T	1
C036	DC63-00450A	COVER-FRONT;S821,PP,T1.8,-,-,-,-,WHT,ROL	1
G003	DC97-00139K	ASSY-HOSE DRAIN(O);SLIM/L1735MM,PP(BP110	1
G007	DC97-04628M	ASSY-PANEL FRONT;S1021,SILVER/UKRAINE	1
G008	DC96-00541A	ASSY-POWER CORD;S621,0.75MM(UCP2)	1
G009	DC96-00149A	ASSY-PUMP DRAIN;P8091/P6091,220~240V/50H	1
G018	DC61-00440A	SHUTTER;SLIM-PJT,PP,WHT,	1
G020	DC61-10672A	COVER-FRONT(L);SWF-P12,PP(BJ-730),-,-,-,	1
G025	DC62-10289B	HOSE-WATER(C);WIP4013SRW,PVC+NYLON,ID10.	1
G067	DC65-60125B	BAND-RING;-,HSWR,T2.4,PI25,-,YEL,-	1
J001	DC97-04627A	ASSY-COVER TOP;SB-PJT,ABS/WHT	1
J006	DC61-00707A	BODY-DRAWER;SB-PJT,MT3320,-,-,-,-,-,-	1
J008	DC29-00006A	FILTER-EMI;DFC-2712R,P/PV/SLIM,250V,12A,	1
J012	DC61-00441A	SPRING-HANGER;S1005J,HSWR,CD3.0,-,-,L175	2
J014	DC97-02132D	ASSY-HOUSING DRAWER;SB-PJT/ONE-WAY,SPOON	1
P001	DC99-00321A	ASSY-PAINT;SB-PJT,SB/COLD	1
P002	DC97-00702D	ASSY-FRAME FRONT;SB-PJT/WHT,ROUND-TYPE	1
P003	DC97-00417B	ASSY-FRAME PLATE(U);SWF-P12,NO-SPRAY/SB-	1
R003	DC91-12077A	ASSY-CLAMP DIAPHGRAM;SWF-P12,TUB	1
R005	DC97-02099B	ASSY-DRUM;SB-PJT,DRUM-F/B(0.4T)	1
R006	DC47-00006D	HEATER;KAWAI,SS-PJT,SUS316L,-,-,230V,-,-	1
R007	DC97-02137B	ASSY-TUB BACK;SB-PJT,SAMBAK(10%)	1
R008	6602-001073	BELT-TIMING GEAR;POLYURETHAN,1270,J3,MEG	1
R010	DC61-00856A	BRACKET-HEATER;SB-PJT,STS430,-,-,-,-,-	1
R012	DC66-00320A	DAMPER-SHOCK;SB-PJT,ABS,-,-,-,-,WHT,AKS-	2
R013	DC61-20219A	DOOR-DIAPHRAGM;EPDM,-,-,-,-,-,-,GRY,SWF-	1
R014	DC62-10303B	HOSE-AIR;S821,EPDM,ID24,OD47,-,L130,BLK,	1
R015	DC62-10305B	HOSE-DRAWER TUB;S821,EPDM,ID35,OD40,-,L1	1
R016	DC62-00121A	HOSE-FILTER TUB;S1005J,EPDM,ID65,-,-,-,-	1
R017	DC62-10311C	HOSE-PRESSURE;S821,EPDM,ID13.5,OD17.5,-,	1
R018	DC31-00002H	MOTOR-DRUM;HXGP2I,S803J,-,50HZ,-,-,LOW-R	1
R020	DC66-10176B	PULLEY;ALDC,-,D297,P1291,ID12.5	1
R021	DC62-00007B	SEAL-OIL;SB-PJT,NBR(SD25),BLK,-,-,-,JINY	1
R023	DC61-00365B	TUB-FRONT;SL-600,FRPP(GR15%)SAMBAK,-,-,-	1
R024	DC62-20311C	VANE-CHECK;SB-PJT,EPDM,-,-,BLK,CHINA	1
R025	DC66-00137B	WEIGHT-BALANCER;SB-PJT,CONCREET,-,-,-,-,	1
R025	DC66-00172A	WEIGHT-BALANCER;SL-600,GC-150,SLIM/LOWER	1
R028	DC62-40183A	PACKING-TUB;SWF-P12,EPDM,-,-,-,-,-,BLK,-	1
R030	DC61-40345A	BRACKET-PRESSURE;GI or GA,SWK-P12,T1.0,-	1
T024	DC96-00522A	ASSY-WIRE HARNESS;SS-PJT,SUB	1

15. Parts List

NO.	CODE NO.	DESCRIPTION;SPECIFICATION	Q'TY
T031	DC61-00041B	CUSHION-MOTOR;S821,EPDM,OD20,ID16,-,BLK,	1
T031	DC61-00041A	CUSHION-MOTOR;SWF-6V,BUTYL,-,-,-,ID16/OD	1
T038	DC62-10022K	HOSE-PUMP;S1005J,PP(BB110),ID21,OD26,-,L	1
V001	DC63-00353A	COVER-DOOR;SB-PJT,ABS,-,-,-,-,-,-,ROUND	1
V002	DC97-00100C	ASSY-HINGE;S1005J,OPEN ANGLE 180DEG	1
V007	DC91-12078A	ASSY-WIRE DIAPHRAGM;SWF-P12,FRAME-FRONT	1
V009	DC61-20207A	DOOR-GLASS;Q1636GW/XEU,GLASS,-,-,-,-,TRP	1
V010	DC64-00653A	DOOR-LOCK S/W;DA,PA6-G,-,H82,W50,-,BLK,2	1
V016	DC66-00355A	LEVER-DOOR;SD455-PJT,POM,-,-,-,-,WHT,EMZ	1
V031	DC61-00057A	HOLDER-GLASS;DWM599W,ABS(HG-0760),-,-,-,	1
Y001	MFS-S1021-00	ASSY PCB PARTS;MF-S1021-00 COLD	1

15. Screw/Bolt List

CODE NO.	DESCRIPTION;SPECIFICATION	Q'TY	REMARK
DC97-02412A	ASSY-BOLT;SWF-P12,MOTOR, M8*L62	1	
DC97-02412B	ASSY-BOLT;SWF-P12,WEIHGT(L)/M8*L147	2	
6011-001421	BOLT-FLANGE;M7,L61(29.4),ZPC(YEL),SWRCH1	1	
6011-001421	BOLT-FLANGE;M7,L61(29.4),ZPC(YEL),SWRCH1	1	
6011-001452	BOLT-HEX;M10,L20,ZPC(YEL),SWCH10AK,ASSY(	1	
DC60-40144A	BOLT-HEX;M10,L41,ZPC2(YEL),SM10C/DAMPER	2	
DC60-40005A	BOLT-HEX;M4,L60,ZPC2(YEL),SS41C,-,-,-,-	1	
DC60-40141A	BOLT-HEX;SM10C/DAMPER,HEX,M8,L66,-,ZPC2(	2	
DC60-50010A	NUT-DIAPHRAGM;EGI,M4,-,-,2.5TX20X8	1	
DC60-50010B	NUT-DIAPHRAGM;EGI,M4.2,-,-,2.5TX20X8	1	
DD60-50018A	NUT-FLANGE;-,M5XP0.8,FZY,MSWR10,-	2	
6006-001170	SCREW-ASSY TAPP;WS,TH,+,M4,L10,ZPC(YEL)	1	
6006-001170	SCREW-ASSY TAPP;WS,TH,+,M4,L10,ZPC(YEL)	1	
6006-001170	SCREW-ASSY TAPP;WS,TH,+,M4,L10,ZPC(YEL)	1	
6001-001773	SCREW-MACHINE;TH,+,M5,L12,	2	
6009-001343	SCREW-SPECIAL;PH,TORX,,M4,L10,PASS	1	
6009-001342	SCREW-SPECIAL;TH,+,,M5,L11,ZPC(YEL)	2	
6002-000525	SCREW-TAPPING;FH,+,1,M4,L12,PASS,STS304	1	
6002-000630	SCREW-TAPPING;PH,+,2S,M3,L8,ZPC(YEL),SWR	2	
6002-000630	SCREW-TAPPING;PH,+,2S,M3,L8,ZPC(YEL),SWR	2	
6002-000554	SCREW-TAPPING;PH,+,2S,M4,L12,ZPC(YEL),SW	1	
6002-000554	SCREW-TAPPING;PH,+,2S,M4,L12,ZPC(YEL),SW	5	
6002-001327	SCREW-TAPPING;PWH,+,1,M4,L12,NI PLT	1	
6002-001327	SCREW-TAPPING;PWH,+,1,M4,L12,NI PLT	2	
6002-001327	SCREW-TAPPING;PWH,+,1,M4,L12,NI PLT	2	
6002-000470	SCREW-TAPPING;TH,+,1,M4,L10,ZPC,SCRCH18A	2	
6002-000471	SCREW-TAPPING;TH,+,1,M4,L12,PASS,STS304,	4	
6002-000471	SCREW-TAPPING;TH,+,1,M4,L12,PASS,STS304,	1	
6002-000213	SCREW-TAPPING;TH,+,1,M4,L12,ZPC(YEL),SWR	1	
6002-000213	SCREW-TAPPING;TH,+,1,M4,L12,ZPC(YEL),SWR	1	
6002-001006	SCREW-TAPPING;TH,+,2S,M4,L12,-,STS410	2	
6002-000444	SCREW-TAPPING;TH,+,2S,M4,L14,NTR,STS304	2	
6002-000445	SCREW-TAPPING;TH,+,2S,M4,L18,NTR,STS304	2	
6002-000239	SCREW-TAPPING;TH,+,2S,M4,L8,ZPC(YEL),SM2	8	
6003-000226	SCREW-TAPTITE;TH,+,S,M4,L8,ZPC(YEL),SWRC	2	
DC60-60040A	WASHER-NYLON;-,ID10.5,OD32,T2,-,PBSP-1/2	1	
DC60-60044A	WASHER-PLAIN;-,ID10.5,OD30,T3,-,STS304	2	
DC60-60044B	WASHER-PLAIN;SBC,ID8.4,OD30,T3,-,-,-	1	

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